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ABSTRACT

The practicum had as its goals increased awareness of alternative speech and language service models in a public school setting, increased usage of the alternative models, and consensus among speech and language therapists regarding direct and indirect service models. The project design used the Delphi method (four rounds) with 16 speech and language therapists. The Delphi method allowed each therapist to self-evaluate service delivery models with other therapists in the school system. Findings indicated that most speech therapists favorably completed a rating scale on the fourth round of surveying as to the desirability of the following: (1) clarifying the use of the least restrictive prototype; (2) evaluating more frequently short and long term goals for each student; (3) acquiring greater knowledge of regular education curriculum; (4) increasing clarification of each therapist's role in the school; (5) increasing use of the parent model; (6) increasing use of the home model; (7) increasing use of the consultation model; (8) increasing use of the materials only model; (9) establishing priorities concerning the most appropriate learning environment for speech and language services; and (10) developing agreement regarding the speech only handicap. (DB)

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PRACTICUM REPORT

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UTILIZATION OF CONSENSUS TECHNIQUES BY SPEECH THERAPISTS TO INCREASE ALTERNATIVE SPEECH AND LANGUAGE MODELS FOR ELEMENTARY CHILDREN

BY

PAUL M. OPERACH

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PRACTICUM APPROVAL SHEET

This practicum took place as described.

Verifier: Lucille R. Caron

Mrs. Lucille Caron
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July 28 1988
Date

This practicum report was submitted by Paul M. Operach under the direction of Dr. Jo-Ellen Salce Rogers. It was submitted to the Ed.D. Program in Early and Middle Childhood and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova University.

Approved:

7/27/88
Date of Final Approval of Report

Jo-Ellen Salce Rogers, Ph.D.
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Paul M. Operach

Cluster XXI

A Practicum II Report presented to the Ed.D. Program
in Early and Middle Childhood
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education.

NOVA UNIVERSITY

1988

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ABSTRACT

Utilization of Consensus Techniques by Speech and Language Therapists to Increase Alternative Speech and Language Models for Elementary Children. Operach, Paul M., 1988: Practicum Report, Nova University, Ed.D. Program in Early and Middle Childhood. Descriptors:Elementary Education/SpecialEducation/ Handicapped Students/Speech Communication/Speech Therapy/Home Participation/Parent Participation/Consultation/Instructional Materials/Questionnaires/Mainstreaming/Program Evaluation.

This practicum took place in a Southeastern Massachusetts urban community. The project design used the Delphi method to affect change regarding the use of alternative service models as the least restrictive environment. The general goals were: (1) to develop awareness of alternative speech and language service models in a public school setting; (2) to increase usage of alternative models in a public school setting, and; (3) to develop consensus regarding direct and indirect service models in the public school setting. Ten specific objectives were defined. Also, a semi-structured interview process was conducted during the last two months of the practicum to ascertain qualitative factors relative to data obtained from the questionnaires.

The author utilized four rounds of surveys with 16 speech and language therapists. These therapists provide direct services to over one thousand elementray children during the school year. The Delphi technique allowed each therapist to self-evaluate her service delivery models with other therapists in the school system.

The results of the practicum indicate that general objectives were met at the substantial and optimum level. Consensus and priortizing goals were clearly detailed in the descriptive measures. Feedback and systematic follow-up by the author to the therapists was found to be useful and positive.

Chapter I

The Setting

The setting is a large urban city located approximately fifty miles south of Boston, Massachusetts. It is known for its historic role in the whaling industry in the 18th and 19th century.

Originally settled by Yankee-New Englanders, the city's ethno-cultural base changed with the influx of Polish, French, and later Irish immigrants. Assimilation of these groups occurred due to industrialization and work opportunities in textile mills and factories.

Today, the city's population is over 98,000 people. Recent arrivals include people of Portuguese, Spanish, Cape Verdean and Asian descent. This is evidenced by one of the largest bilingual-Portuguese public education programs in the Commonwealth. It is a white urban community with a predominately low socioeconomic (SES) population.

Classified as a " big city " by the United States Department of Census, the city is designated as a kind of community " 1 " (KOC 1) by the Massachusetts Department of Administration and Finance (Stevens, 1978). Size, demographics and financial factors of the city are used by the Commonwealth to determine the classification. This is important in state and federal funding. For example, the city expended 33 million dollars for education in the school

year 1985-1986. Over 90 percent of this expenditure was reimbursed because of the KOC 1 grouping consistent with Massachusetts General Law, Chapter 70.

Economic problems have plagued the area since the departure of the textile industry. Like most Southeastern Massachusetts cities, the city has lagged behind other cities of the Commonwealth in developing private tax sources. Double-digit unemployment levels have been typical of the city's problems. The unemployment rate is now estimated between 5.5 and 7.0 percent (Brayton, 1985) as reported by Kristen Demong, Director of the Massachusetts Department of Employment Services ("Jobless Rate", 1986).

In the past two years, the city has been experiencing growth in new housing. This appears to be the result of economic growth in the Boston area and lower housing costs in the city. New residents are often employed in the greater Boston area making a portion of the city a commuting population.

Fishing, especially scalloping, is an important industry of the city. Overall catches are smaller since the enactment of new federal fishing laws to preserve Atlantic fishing grounds. Unskilled labor in the limited manufacturing and fishing industries exacerbates economic conditions. Electronic and sports industries have helped to limit economic downturns.

The Writer

The writer has worked in the city for seventeen years. Previously, the writer was employed as an English and Speech teacher at a regional high school for two years. In 1970, the writer accepted a position as a Speech, Language, and Hearing Therapist in the city. Since then, the writer has provided a range of diagnostic and direct therapy services to students ranging from preschool through high school. The writer has provided these services in most of the 26 schools in the system. This has affored him varied experiences with diverse populations and staff.

The role of a Speech, Hearing and Language Therapist in the schools runs the continuum of screening students for services through specific administrative duties related to the special education law in Massachusetts, Chapter 766. The Speech Therapist is an active participant in team evaluations in the city's schools.

The writer is assigned to Pupil Personnel Services. The writer also participates in early childhood activities including a special education outreach program for non-LEAs and parents. Holding two advanced degrees and a number of specialized clinical experiences, the writer's range of involvement with regular students and special needs students is extensive.

Chapter II

Problem Statement

The problem concerned the use of direct service models of speech and language therapy in the city's schools. Speech therapists primarily use direct service models. Alternative service models were not in evidence. A disparity existed between therapists providing individual and small group therapy. This related to the idea of multiple causality present in the community and the schools.

The issue had to do with how speech and language therapists feel about the services they provide and how they handle the speech and language (SI) student. Sometimes these issues of policy and behavior can be separated. Therapists did not take into account the practical considerations involved in providing services. Simply, therapists did not think about the practical effectiveness of intervention to achieve improved performance of the individual.

Lacking in the therapists was an agreement regarding service models. Discussion between therapists concerning the use of direct service models was absent. There was no meeting of the minds. A commitment to seek alternative service models was not affirmed in the therapists' strategy. Therefore, the issue of responsible utilization of indirect service models had not been adequately approached.

Documentation

This situation paralleled similar issues in the field of special education especially services for children classified as "mildly handicapped". These children do not present marked dysfunctions in cognitive or affective areas. Still, the children would present a verifiable pattern of dysfunction in a specific cognitive or affective area.

In the field of Speech and Language Pathology, there has been an evolution regarding language development and acquisition. On the other hand, speech which concerns the formation and production of sound remains unchanged. This evolution of ideas and the relevant research has emerged rather quickly in the past seventeen years (Bryen & Joyce, 1985).

Several areas clearly demonstrated that the direct service model used by speech therapists had to be addressed. The Superintendent of Schools had indicated that budget restictions did not permit the hiring of more staff. He had stated publicly and at orientation meetings in September 1986 and 1987 that there was (and is) a need to find alternatives to present service models. The Superintendent asked staff to examine and evaluate their professional role and exercise options before initiating educational and diagnostic procedures for placement or support services.

The Superintendent expressed concern that the school system was becoming primarily a special education system because of the high numbers of students receiving special services.

The Assistant Superintendent for Special Services sought to address the problem of disproportionate placements specifically the 502.1 placement in which the student receives no direct service. Targeted was the speech and language area. An educational consultant was brought in to meet, discuss and examine the use of the 502.1 prototype with the speech therapists. Time was alotted within the school day for the therapists for discussion with the consultant. Three sessions were held in school year 1983-1984 with all staff present. It was reasonable to conclude that the consultant was unable to affect change in the use of the 502.1 prototype by the therapists. The staff articulated concern for job security and the loss of professional latitudes of judgment. Feedback indicated the meetings were non-productive. Plans to continue the effort were terminated.

In the 1980 Special Education Audit and subsequent reviews by the Massachusetts Department of Special Education, it was noted that the school department had under-utilized the 502.1 prototype. Cited were high levels of direct service delivery compared to prevalence figures and other reporting statistics in the Commonwealth. Speech and language impaired (SI) was one such area. Furthermore, the Assistant

Superintendent for Special Services' annual report to the school committee for school year (SY) 1985-1986 and 1986-1987 affirms the educational notion that materials and parent consultation models may be used to enhance speech and language objectives relative to a student's educational plan.

There were 1,191 students receiving SI services in SY 1985-1986 and 1217 in SY 1986-1987. This is above the prevalence projections of 1975 (American Academy of Pediatrics, 1977). Present precentage of children served by handicapping condition is 2.40% nationally (Edgar & Hayden, 1985).

In addition, teachers of trainable students have requested another therapist to service their students. The program has one therapist serving students through age 21.

To conclude, the problem has been a lack of utilization of alternative SI delivery models by speech therapists. Previous efforts failed because the staff felt threatened in terms of professional judgment and the loss of jobs. Moreover, the number of children classified as needing SI services has grown. School officials indicated present strategies of service delivery need to be changed. Referrals for evaluation for SI services rose in SY 1985-1986 to 760 children and 810 children in SY 1986-1987. Therapists participation in team evaluations rose from 1,061 to 1153 in the same period.

Problem Analysis

An analysis of the problem involved relationships at different levels. This is the idea of multiple causality which was applicable to the problem. The causes of the problem were examined in terms of external and internal causes.

There were three external causes which can be demonstrated. First, there was the university cause. This had to do with programs of instruction and training regarding speech and language therapists at the graduate level. Gillen (1971) relates how the public school setting was used to prepare a student for directed teaching experiences. This was a " weaning period " of some 150 hours to acclimate the student to the realities of a public school setting. In this mode the student was appraised of communications with the regular staff, school administration, parents and adjunct medical personnel. But, to achieve certification or registration status by governing boards in speech and language pathology the emphasis was on the training of therapist to provide therapy of varying types. Gillen further stated concern regarding speech pathology in the public schools. The training model for the college student was based on a clinical model and expectations of therapeutic techniques. This translated into an emphasis in training favoring a separate service delivery model from regular

education. Therapists trained in this staid approach probably have never heard of the alternative perspective put forth by Dunn (1968) questioning service models for all types of handicaps. More recently, the National Commission for Excellence in Teacher Education in 1985 sought to deal with issues of teacher training regarding regular education. Pugach (1987) made some pertinent arguments regarding special education issues consistent with the National report. Pugach (1987), Edgar and Joyce (1985) stressed that the way present special educators deal with handicapped students, especially mildly handicapped, needed to be clarified with regular education. This is a repeated theme. Hagerty and Abramson (1987) express displeasure over moving the mildly handicapped student out of a regular classroom setting into a separate system to receive services. Included in their survey of research on mildly handicaps are SI students. Thus, various experts were more troubled by the kinds of professional training programs in education which do not equally incooperate regular and special education needs.

Second, there was a long standing difficulty between public and non-public school speech and language therapists. Non-public school speech and language therapists would be defined as professionals working in private or clinical practice. In Massachusetts, after years of lobbying by the Massachusetts Speech and Hearing Association (MASHA) a board of registration was formed subsequent to legislation.

Part of the difficulty in obtaining a board of registration for speech and language pathology was a lack of provisions in such registration for public school therapists and programs within the state college system. A grandfathering provision for those speech therapists practicing before the passage of the legislation was provided. This enabled public school speech therapists not meeting the clinical standards to qualify for a license.

The public school setting was viewed by professionals teaching at primarily medically affiliated institutions as sort of the least desireable professional environment. Students studying in the area of speech pathology were given doses of the " clinical role or model " with little regard for the public school setting. These professors took on an ivory tower approach using their position of authority to stress theory (Gillen, 1971) research and therapy.

Third, there was the economic cause. Unlike a clinical or private practice, speech and language services in the public schools are paid by appropriations and allocation grants. Generally speaking, total revenue from the Commonwealth is funded through the municipality although receipts may be designated for specific programs. In the clinicial model, speech therapists received only money from direct service to the patient. Third party payees, usually insurance companies, do not pay for indirect services. Couple this with a state law enacted several years ago, called Proposition 2 1/2, school costs were restricted by

specific percentages of increase. This law caused widespread lay-offs of teachers and some specialists in the Commonwealth. An honest analysis of the way speech and language services were provided had to take into account anxieties involving unemployment. A deduction as to the inability of an educational consultant to ferret out assumptions of therapists in the use of 502.1 prototype illustrated personal and attitudinal fears of the staff relative to job security. This related specifically to mutiple causality because therapists are human beings with wants and desires for safety and security.

There were five internal causes which were demonstrated. First, there was the specialist syndrome. This was characterized by special services being provided out of the regular classroom and in another setting usually in the same building. In the case of speech therapists, the therapist was perceived by the classroom teacher as separate from the regular education program. Although some interaction and feedback concerning the pupil may be discussed time and opportunity to explore alternatives were not provided for in the school day. Goodlad (1984) alludes to this very point by expressing a concern about a hierarchy being established in the school system between regular education and special education. Instructional decisions concerning the student and modifications to the student's program were limited due to an absence of ongoing evaluation.

Second, there was the knowledge lag. This was characterized by the therapists not being aware of or using alternative speech and language models. This related to the university cause but goes further in that opportunities were not provided for in the public school setting to explore fully the use of other service models. This would depend on each therapist's efforts to educate themselves outside of school through further study at colleges or professionally sponsored workshops.

Third, there was the diagnostic model cause. This was characterized by the therapist being perceived by the regular teacher as the authority in determining services in speech and language. The regular teacher has been taught to rely on the specialist. This trend in education has been questioned. Goodlad (1984) described the need to prepare regular classroom teachers in developing prereferral skills through restructuring regular education preparatory programs at the college level. This was particularly acute in determining the needs of mildly impaired students especially dealing with communicative skills.

Fourth, there were personality causes. It was reasonable to assume each individual has his/her own way of doing things. In each public school, the school itself develops a " personality " depending on the administrative style of the principal, composition and background of staff and the socioeconomic backgound of the students. Within this realm each speech therapist established his or her

professional style and pedagogic approaches. This often presented professional and legitimate differences in assessing a student's SI needs. As a result, there was diverse application of service models in the school system. Agreement between therapists as to how to provide the best possible and appropriate support rests with the individual therapist. This is further evidenced by the fact that most SI services involve a team evaluation of three individuals with written assessments from the regular teacher.

Fifth, there was the opportunity cause. This was the inability until recently of staff to regularly meet to discuss problems relating to service delivery. Such participation was voluntary because the time being used is "preparation time" (i.e. one Friday afternoon each month). Potential conflicts existed because of contractual obligations. In order to attend the monthly meeting, each therapist must obtain permission from his or her principal and the departmental director. These meetings have been effective in reviewing materials suitable for screening and diagnostic purposes by all staff. Yet, participation by therapists have varied due to individual commitments and needs of the schools.

Relationship to Literature

With the advent of the Education of All Handicapped

Children Act of 1975 (EHA), commonly known as Public Law 94-142, as amended by Public Law 98-199, and Public Law 99-457, Congress has addressed the needs of the handicap. EHA is the financial and legal basis for special education programs in the public schools. At the state level, the 1972 Comprehensive Special Education Law of Massachusetts, called Chapter 766, is the Commonwealth's response to the needs of the handicap. Chapter 766 is an aggressive piece of legislation than Public Law 94-142, especially the provisions relative to administrative-law requirements.

These statutory initiatives require that a child be provided with suitable appropriate education from 3-21 years of age. The child cannot be excluded from the acquiring of an education due to affective, cognitive or physical limitations. The responsibility for determining the proper educational placement rests with the local school department. Questionable placement policies have resulted in litigation. Specific differences exist regarding the grouping of children needing special education services. This distinction is pronounced in Massachusetts because the intent and directives of the legislation require that special education students be grouped according to time out of the regular classroom. The prototypes used are: (1) the 502.1 prototype means the student has a modified program within the regular classroom setting; (2) the 502.2 prototype indicates the student receives special education services up to 25% of the time in a special education program; (3)

the 502.3 prototype indicates that the student receives special education instruction from 25% to 60% of the time; (4) the 502.4 prototype indicates that the student is in a substantially separate class; (5) the 502.5 prototype indicates that the student is in a private day program; (6) the 502.6 prototype indicates the student in a residential program; (7) the 502.7 prototype indicates the student receives a home or hospital program, and; (8) the 502.8 prototype indicates the student is in a preschool program. This method of grouping differs from categorical groupings found in most states as well as categorical reporting procedures and methodology used by the federal government. The Massachusetts Department of Special Education uses prevalent figures when reporting to federal authorities. Thus, this classification methodology significatly reduces the labeling (Lance, 1980) problems which in itself creates a handicap. Interestingly, guidelines for educational services to children with speech, hearing, and language needs were outlined by the Massachusetts Department of Education- Division of Special Education in 1974 (Rice, 1974). Described were the consultant model (502.1), the regular classroom placement with supportive services (502.2), the resource room (502.3), the transition/integration class (502.4), the diagnostic placement (502.5), full-time special class (502.6), hospital/home bound placement (502.7), parent-infant placement (502.8), and the residential

placement (502.0). The guidelines gave examples of the type of services within each prototype including the duties and responsibilities of the speech therapist.

Assessment of children with speech and language problems is difficult. Carrow (1972) states that decision making about treatment and placement involves a number of factors as well as the risk of error. Motivation is a crucial factor in assessment strategies and many questions should be asked about the appropriate service model. McLean, Yoder, and Schiefelbusch (1972) express similar concerns regarding carry-over of articulation therapy. They stress a modeling of stimuli approach with retarded children. These authorities reiterate the need to evaluate the child with speech and language problems in the best environment for change to occur.

A recurring debate between special education and regular education concerns appropriate placement of the child. This is the least restrictive concept (Johnson, 1975). The term least restrictive refers primarily to the environment whereas mainstreaming involves integration, educational planning, programming and accepting responsibility (Kaufman, Gottlieb, Agard and Kukic, 1975; Hallahan & Kauffman, 1982). Mainstreaming is a conceptual framework which can be associated historically with the alternative movement in education. This movement sprung out of dissatisfaction of parents with traditional models of education (Tilley,

1975). The regular education initiative (REI) which advocates teaching handicapped children in a regular classroom has received widespread attention (Viadero, 1988). Part of the debate concerns the appropriate placement for the midly handicapped child and developing feasible strategies (Hallahan et al., 1988). The Executive Director of the Council for Exceptional Children, Jeptha Greer (1988), stated that regular education environment was appropriate when conditions permit. A study by the Research Triangle Institute (Viadero, 1988) found that there was a 1.2% increase nationally in special education enrollments in SY 1986-1987. This was a significant increase noting that learning-disabled children consist of the largest category. Such an increase intensifies the REI debate.

Turnbull (1987) analyzes the Board v. Rowley (1982) case which sought to define the terms free and appriopriate education and the integration of a child in an educational setting in a temporal manner. Mark and Ruth v. Grant Wood Area Education Agency (1986) the Eighth Circuit Court held for the defendant regarding appropriate placement. Massachusetts Department of Special Education has exhibited administrative rulings relative to the least restrictive placements. The Board of Special Education Appeals (BSEA) ruled consistently in favor of plantiffs in BSEA Number 5635, Randolph Public Schools issue of regular nursery school as a necessary component of a child's needs, and BSEA Numbers 5270, 4106 about the

appropriateness of programs for children in Springfield and Taunton Public Schools. In examining the service delivery models for a SI child in a public school setting, the therapist is confronted with the issue of the most appropriate environment to reduce and eliminate a problem and the methodology necessary to affect change. Initially, the therapist should be aware that the majority of SI students are serviced through the 502.2 prototype. This is quite consistent with findings at the state level (Leavitt, 1987) showing that out of 139,000 students receiving special education 85% are students with mild handicaps. Special education placements for direct and supportive services have grown from 1974 to 1985 (Leavitt, 1987). This has revealed a 64% increase the highest rate in the country. Funding increased from $104 million to $550 million according to Leavitt (1987). These figures have prompted the Massachusetts Department of Special Education to closely examine special education needs with regular education. Edgar and Hayden (1975) scrutinized records of over 10,000 special education students finding 1.6% of the total school age children in the United States have a "quantifiable handicapping condition ". All other deficits are viewed as " performance deficits ". Their findings were based in large part on two reports of the Comptroller General of the United States (U.S. General Accounting Office). The significance of this data strongly suggests not only should regular education

accept responsibility to educate the handicap but a fair estimate of " speech-only handicap " should be around 2% of the population.

To recapitulate, the problem of speech and language services concerns a number of factors relative to service delivery. The primary method of service delivery is the direct/therapeutic model. The need to examine the mode of delivery has been recognized by school administrators in the past. Efforts to change the mode of delivery have been limited. The percentage of pupils with speech and language problems exceeds national levels. The causes of the problem were both internal and external in nature. The literature indicates alternative models of education should be explored and developed to meet the needs of the child. This suggests that traditional instructional strategies may not be suitable for special needs children. The assessment of the child requires in depth questioning by the evaluator(s) of the service delivery model.

Chapter III

Anticipated Outcomes

The anticipated goals of this practicum centered on the general goals. Specific goals support the expectations of the general goals through specificity. The general objectives were that 12 out of 16 speech therapists in the schools would favorably complete a rating scale on the fourth round of surveying as to:

1. developing awareness of alternative speech and language models in a public school setting;
2. increasing usage of alternative models in a public school setting;
3. developing a consensus regarding direct and indirect service models in the public schools.

There were 10 specific objectives. Again, 12 out of 16 speech therapists would favorably complete a rating scale on the fourth round of surveying as to:

1. clarifying the use of the least restrictive prototype;
2. evaluating more frequently short and long term goals of each student;
3. acquiring greater knowledge of regular education curriculum;
4. increasing clarification of each therapist's

role in the school;

5. increasing the speech therapists' use of the parent model;
6. increasing the speech therapists' use of the home model;
7. increasing the speech therapists' use of the consultation model;
8. increasing the speech therapists' use of the materials only model
9. establishing priorities concerning the most appropriate learning environment for speech and language services;
10. developing agreement regarding the speech only handicap.

The measurement of the objectives utilized a problem solving methodology called the Delphi technique. Four rounds of assessments were employed. Speech therapists received a series of surveys regarding how each provided services to their students. The surveys used a Likert scale comprised of a five level response continuum (e.g. 1= most disagree to 5= most disagree). The ordinal scale indicated therapists' responses to problem statements. It was a purposeful design allowing the speech therapists to examine and discover how each provided services. Surveys were returned to the author for tabulation and reforming statements regarding services and activities. New

statements were added and others deleted relative to the responses gathered from the therapists. Then the author prepared and submitted the second round of the survey with statistical data from the first round to all therapists. Each therapist was asked to review the groups' responses before completing the second questionnaire. This procedure was repeated for three rounds (totaling 4 rounds) at which time the objectives were addressed fully. This was consistent with methodology described by Orlich (1978) and Borg and Gall (1983).

Optimum achievement of the general and specific goals were considered met when a Likert item attained a rating of 4.0 (or above). Substantial achievement of the general and specific goals were considered met when a Likert item attained a rating of 3.0 (or above). Agreement was reached on some Likert type items prior to the fourth round.

The timeframe for each round of the survey was approximately five weeks beginning in October, 1987. Turn around time, i.e. from receipt of the questionnaire back from the therapists to the writer, was 14-20 days. This was governed by mailing time within the school system and lead time for review and approval by the practicum advisor.

Another component added integrity to the practicum. This was the semi-structured interviews with 10 speech therapists after tabulating the last survey. It was a cross-check to ascertain not just the quantitative data but the qualitative aspects of the problem solving technique.

TIMELINE OF PRACTICUM

	Activity	Month	Turnaround Time
1.	Outline to Advisor and Verifier	July-August 1987	One Month
2.	Proposal/Staff Profile: to Adviser/Verifier	August-September 1987	One Month
3.	Consent Forms Complete	September, 1987	--------
4.	Prepare **1st** Questionnaire Cover Letter for Review	September, 1987	--------
5.	Sent Approved Questionnaire Verifier/Participants (16)	October, 1987	One Month
6.	Tabulated/Reformed Questionnaire	November, 1987	One Month
7.	Sent **2nd** round Data/ Questionnaire to Adviser	November, 1987	End Month
8.	Sent **2nd** Questionnaire and Feedback Data/ Letter to Participants	December, 1987	One Month
9.	Tabulated/Reformed/Sent **3rd** round Questionnaire to Adviser	January, 1988	One Month
10.	Sent **3rd** Questionnaire and Feedback Data to Participants	February, 1988	One Month
11.	Tabulated/Reformed/Sent **4th** round Questionnaire to Verifier	March, 1988	One Month
12.	Sent **4th** Questionnaire and Feedback Data to Participants	April, 1988	One Month
13.	Tabulated for Practicum Purposes and Interviews with Participants	May, 1988	One Month
14.	Arranged and Conducted Interviews with Participants	May-June	**2** Months
15.	Prepared Practicum Report /Review Revisions/ met with Verifier/ Adviser Conferences	June-August 1988	**3** Months

The interviews provided further feedback which could be submitted for administrative review.

Data analysis was made up of descriptive statistics: (1) a frequency response table; (2) cumulative charts showing the range, mean, mode and standard deviation (SD) of therapists' responses for each round, and; (3) a Likert item chart showing the variability of responses from round to round.

Chapter IV

Theoretical Basis of Solution

In determining a solution strategy for this practicum a brief review of the area of speech and language was needed. This was necessary to acquaint the reader with the history, philosophy and theories used by speech and language therapists.

Speech pathology deals with the study and treatment of problems relating to the production of sound. Although a simple definition, speech correction involves problems associated with functional and organic causes. Language, cannot be defined so broadly. Part of the difficulty was that theories of language development and acquisition have changed. Initially, there was the behavorist view of language based on the theory of Skinner (1968). Skinner stressed a stimulus-response relationship in which language must be structured to produce a particular response. Then came the structual view with the emphasis on syntax, i.e. having to do with the arrangement of words, phrases, and clauses. This relates to the theory of Chomsky (Cazden, 1971). Cognitive and developmental theory (Bloom & Lahey, 1978) emphasized knowing and perceiving strategies. Later pragmatics emerged dealing with language in a social environment (Hallahan & Kaufman, 1982). Presently, all these views are practiced in

the profession.

The solution strategy had to address professional ideas and strategies of service delivery. Referral and monitoring standards of language therapy and language development lacked a timely, reliable and comprehensive view by all therapists. Language therapy was (and is) the predominant type of speech service in the public schools. This replaced articulation disorders category nearly ten years ago.

To further illustrate disagreement regarding learning and language theory was the encounter at Royaumont (Gardner, 1982). Here, Jean Piaget and Noam Chomsky debated aspects of intellectual development and Chomsky's ideas of underlying factors of syntax. Was language as a part of knowledge inborn? Does environment play a crucial role in the development and use of language? Or is language a part of overall intellectual development as Piaget stresses? It is obvious in reading Gardner's account that no clear answers evolved. Both theorist have relevant and pertinent facts which equally support their beliefs. Thus, it is difficult to determine what language is and how language develops; it is complex and unique to man.

Previously Attempted Solutions

What solutions have been tried in the area of service models for the speech and language impaired (SI) student?

Usually such service models involve considerations of the student's developmental, cognitive and social needs (Muma, 1978). In a structured environment such as a school, clinic or hospital, a speech therapist has provided direct services to the patient. This is after a determination of need and disclosures regarding the student's abilities, present performance levels , limitations and strengthens. In the public school setting, this is the team evaluation process. The primary service model is direct therapy either individually or in small groups. Monitoring the effectiveness of service delivery rests primarily with the therapist. This involves the subjective judgment of the therapist as a major factor in determining the intervention model (Schiefelbusch & McCormick, 1982). Moreover, children develop differently therefore effective speech or language intervention models must involve the parent, the teacher, and others which normally interact with the child (Kami & DeVries, 1978; Schiefelbusch & McCormack, 1982; Edgar & Hayden, 1985). It is commonly accepted fact that children with a SI problem at the elementary level respond well to amelioration. Yet, improvement may be evident without intervention in certain cases for the mildly handicapped (Bagnato & Neisworth, 1983; Edgar & Hayden, 1985; Hagerty & Abrahamson, 1987).

Christanson and Ysseldyke (1986) found different instructional activities can yield higher student responses. Teachers are important in the establishing the

quantity and quality of a student's response as well as significant feedback relative to the teacher's expectations. A recent study (Korinek, 1987) which investigated effective questioning strategies used by elementary level special education teachers raises concerns about effective language development within the classroom. Of the 45 (predominately male) third and fourth grade special needs pupils participating in small group reading sessions, it was found that special education teachers used recall, rote, or informational type questions 46% of the time. Questions seeking responses for amplification, elaboration, conclusions or behavioral judgments were evidenced 9.2% of the time. Furthermore, oral responses for effective reading instruction did not correlate with written tests especially for low SES and low achieving students. Diedrich and Bangert (1976) observed there was a " enormous inefficiency of clinician time by maintaining children in speech therapy long after maximal gains had been reached " . This study applied to articulation therapy and also demonstrated that the controlled group versus the non-controlled group showed no greater gains in the acquisition of "th" (voiced or unvoiced), "sh", or "l" . Training and the analysis of speech therapists' performance surely indicates shortcomings in the educational system. Muller (1975) in assessing a bilingual services program in New York City found through training sessions for teachers serving

Hispanic children that language was associated positively with life-style of the student and parent. Constraints were noted especially in the administrative support area regarding staff meetings and parent component aspects of the program.

Justification of Solution

The solution strategy put forth had emphasized the direct service model. Theoretical, philosophical, and pedagogic notions have created the present service model. Other alternative models of support can reduce handicapping conditions (Storm & Willis, 1978). Support was found in educational programs as Title I (Viadero, 1987). School volunteers and parents can be most useful and responsible in assisting children (Shein, 1987; Glenn, 1987). The need to develop on-going systems to deal with children's problems has be articulated by Bronfenbrenner (1975) and Walberg (1984). Weatherley and Lipsky (1974) stress parents as " shareholders " in how services are to be provided to children. A home model approach has be used with success (MacDonald, Blott, Gordon, Speigel & Hartman, 1974; Towle, 1980). A study of home models for the teaching of word recognition skills to first grade students concludes that substantial numbers of parents will participate in limited home instruction models if given the opportunity (Vinograd-Bausell & Bausell, 1987).

This study provides a review of professionally supervised models versus professionally administered models of parent reading instruction including meetings with parents, workshops, home visits, individual instruction, and mailed data.

Using a field based parent involvement program, Goodall (1985) found that the parents of 39 kindergarten through grade four pupils exhibited interest in reinforcing classroom learning activities. Teachers' concerns about the parents' abilities to instruct the children were reduced. Home visits by the teachers fostered improved communications between the home and the school. Most importantly, parents became aware of developmental issues and they were able to increase their decision making abilities applicable to their child's growth.

In rural West Virginia, Lombardi (1986) found parents satisfied with special education teachers' performance; nevertheless, the parents wanted more information about the programs of their children. The willingness of parents to become involved in parent training sessions was found to be very positive. Only those parents who had children in special education programs longer indicated a reluctance to participate.

Materials only programs have shown promise (McKenny, 1975). Goodman (1980) addresses the use of materials modification not just at an instructional level but the adaptability level. She advocates a balance

between the materials used and the learning environment inorder to met the needs of the child. Time must be allowed for the full impact of materials and the proper monitoring of the child's behavior.

The consultation model involves the coordination of instructional goals of the school to the needs of the student with the support of a specialist. Polloway and Smith (1982) relate program effectiveness to continuous, on-going review of a student's performance to make choices in the delivery of service. Teachers' attitudes must exhibit a willingness to cooperate with specialists regarding not only parental expectations but increase involvement expressed in P.L. 94-142. Instructional models can be modified through the use of a consultant to the classroom teacher (Blank, 1978; Miller & Sabatino, 1978; Paivio, 1983; Goodlad, 1984).

The teacher assistance team (TAT) which originated in Highland Park, Illinois is a parallel model (Chalfant & Pysh, 1984). The TAT model makes use of regular teaching staff within the school. Basically, it is a support system of three regular classroom teachers who become a learning group. The TAT meets to exchange ideas, to compare methods, to relate experiences, and to deal with problems of instruction involving special needs pupils within the regular classroom. The TAT assists its members in exploring effective classroom strategies without the aid of a specialist. Such a model develops skill and knowledge yet it requires support from the chief educational officer

(CEO). The CEO must provide opportunities for teachers to engage in TAT activities which usually takes away from instructional or preparation time. This is a major draw-back of the TAT.

Often, private consultants have been used in regular and higher education. In special education, the private consulant model is a new concept. Research to ascertain the effectiveness of the private consultant model has not been clearly demonstrated. West and Idol (1987) found only two experimental studies and several reports regarding these indirect services. A 1980 Wixon report (West & Idol, 1987) concluded that sucessful interaction for indirect services was favored for learning and behavioral disordered students. Successful outcomes for the special education consultant model was not substantially supported. Data was either inaccurate or incomplete to validate effectiveness.

New methods of service delivery are sometimes very difficult for professionals to accept. For example, the Montlake case in Washington where Principal Dennett formulated different procedures and methods to deal with children in need resulted in the loss of funding. This case resulted in nationwide attention because it was effective yet denied funding (Marquand, 1987). Robert Palaich, policy analyst for the Education for the Commission of the States, called the policy regarding the denial of Dennett's funding " a federal straightjacket on reform ". Restructuring regular with special education is vital to

providing appropriate services to children (Reynolds, Wang & Walberg, 1987; Sapon-Shevin, 1987) because the dual system works to the determinant of all children needing help.

Description of Solution

The selected solution used was the Delphi technique. It was developed by the RAND Corporation to ascertain group opinions (Orlich, 1978). It is a surveying process using feedback to group members who act individually of each other. The method allowed group members (not administrators) to deal with problem situations. There was no major variation relative to application other than interval ordering in round 1.

From a management perspective, the group decision making process had merit. Group decision making involves longer periods of time but the decisions are superior in quality and they are more widely accepted (Robbins, 1984). A greater sense of value to the organization results from group participation.

Two techniques have been found to be useful as problem solving strategies. They are the nominal and Delphi techniques. Each is a group process but each member acts independently of the other (Huse, 1982; Robbins, 1984).

In 1953 Stephen Corey traced the origins of the method to Kurt Lewin (Glickman, 1982). The idea of using group

processes in a democratic society was implemeted to forecast and manage educational issues. The technique was named "action research". It was based on action orientated groups without the rigors of traditional research methodology. Specifically, the procedure addressed problem situations and resolving issues of conflict by using the persons most familiar with the problem as resource individuals.

Huse (1982) cites several examples of the Delphi technique relative to organizational management. In one example, TRW is mentioned for its rather extensive use of the technique applicable to technical potential and forecasting. Officials of Norman, Oklahoma used the method to develop a successful community plan. Naisbitt (1985) describes the use of the consensus-building responses (called "ringi") as a feature of effective Japanese management which is now in its second generation (called "ringi-sho"). These are examples of nominal and Delphi methods.

The Illinois State Board of Education (1982) used the Delphi technique as a self-auditing procedure regarding early intervention services and programs for children. The group survey involved a select group of professionals in the education field including university and public service officials. Borg and Gall (1983) point out the hidden dangers of the technique due to insufficient returns of surveys. Nevertheless, the

and problem statements using a 5 point Likert type scale. Questionnaires 2, 3 and 4 utilized only problem statements which were designed to be exhaustive and mutually exclusive. Some items required a different semantic scale phrase or word depending on the subject and responses obtained from the therapists. Turnaround time for each survey was appromimately four weeks with an additional two weeks to tabulate and reform the questionnaire. One week was allowed for a review of each subsequent questionnaire by the practicum advisor. A brief written narrative was prepared by the practicum doer regarding the reasons for reformating, changing and adding new statements to each subsequent survey. The surveys were distributed on or about December 1, 1987, February 1, 1988, and April 1, 1988. Of special concern was questionnaire 4 because this survey was the major documentation for assessing attainment of the practicum goals. As stated, a summary evaluation of each round was developed for rounds 2, 3, and 4. This allowed the participants an opportunity to examine the reasoning and evaluation used. All the summaries became a part of the final report. The tabulation of the questionnaires was comprised of the range, mean, mode and standard deviation. The mean and the standard deviation (SD) provided each therapist with a good picture of group responses. The mode, i.e. the most frequent score for an item, indicated tenacity in establishing group agreement. Again, the stability of

technique has become recognized as an effective tool in assessing and changing the work setting (Morrison, Renfro, Boucher, 1984).

The speech therapists in an urban community were asked to voluntarily participate in the practicum. An **Acknowledgement Release Form** was signed by each therapist inorder to validate their role in the project. Thus, therapists were informed as to the purpose and method employed in the practicum. Specifically, the Delphi technique was explained but no formal instruction was given to the therapists concerning service models. The local verifier was the Assistant Superintendent for Special Services. She was informed regarding the timeline of the practicum. This person was given copies of each survey and tabulations regarding the therapists' responses. The verifier also received copies of the proposal and the final report. In addition, the pupil personnel director was informed of the project and given copies of all materials.

Initially, there was a **Speech Staff Profile Survey** to ascertain the background, preparation and experiences of the therapists. This data was used to describe the target group of the practicum. In October, 1987, the first round of surveying began. The questionnaire (having been reviewed by the advisor) was distributed to each therapist. A cover letter accompanied each questionnaire. This first round of surveying contained ranking procedures

the statistical data provided each therapist with valuable information in rounds 2, 3 and 4. A semi-structured interview was conducted with therapists at the end of the surveying in June, 1988. This afforded further information about changes in professional performance and service delivery. Additional information related to the technique and concerns ofthe therpists were verified at this stage of the practicum. The final report of the practicum was prepared and submitted for review to the advisor in July-August 1988. Revisions and additions occurred in this latter phase. The final report of the practicum was submitted to the Practicum Director for administrative review and approval.

CHAPTER V

The Results

The results of the practicum are based on an educational application of the Delphi technique and interviews. Survey items address the predetermined goals. The goals were considered met when the mean to an item reached the 4.0 level. A range of 2 and a standard deviation (SD) of no more than 1.0 indicated optimum attainment. Stabilization of items less than a mean of 4.0 and a range of 3 with a SD of no more than 1.0 was considered to be a substantial attainment. Stabilization of an item other than the parameters described were considered to be consensus data for future inquiry.

As a self-monitoring, self-adjusting and self-repeating technique, the Delphi process produced excellent data. It focused on uncertainty, knowledge, experience and professional judgments involved in providing alternative service models for the SI student. This was the quantitative component of the practicum. The qualitative component was the semi-structured interviews. This provided the participants with an avenue to express clearly and comprehensively their impressions and perceptions of the practicum.

Participants. The description of the target population was

developed from the **Staff Profile-Speech and Language Therapists**. It was presented to the therapists in September, 1987. The survey technique itself used categories to ascertain academic, clinical, and teaching experience of staff.

The target population consisted of 17 female speech and language therapists in an urban school district (but only 16 participated). These therapists provide services to children as a result of team evaluations and an approved educational plan by the parent or guardian consistent with Chapter 766. Children primarily in 502.2 and 502.4 prototypes are served by the therapists. The age range of the therapists range from the mid-20's to over 40. This divides almost equally above and below the age of 31.

Five of the therapists have ten or more years of full-time teaching experience as a specialist in a public school setting. Four therapists have less then four years of full-time experience as a specialist in a public school setting. Six therapists have over four years but less then ten years of experience as a specialist in a public school setting. Two therapists did not respond to the item.

Educational attainment of nine therapists indicates they held bachelors or bachelors plus 15 semester hours of preparation. Five therapists, approximately 30%, held masters or higher degrees. Undergraduate majors, nearly 70%, were in speech or communication sciences with various minor concentrations. Staff holding masters degrees,

roughly 60%, had majors in the speech sciences. Generally, the type of granting institution conferring degrees was/were public colleges or universities.

Seven therapists had practice teaching experiences in addition to clinical practice in speech pathology. All the practice teaching was at the primary or elementary level. Five therapists indicated they had 51-100 supervised clock hours; whereas, seven therapists indicated they had over 100 supervised clinical hours in their academic preparation.

Nine therapists indicated they held certification from the Massachusetts Department of Education as a specialized teacher of the Speech and Hearing Handicapped (area 57). Nine therapists indicated they were licensed by the Commonwealth of Massachusetts, Division of Registration, as Speech Pathologists. One staff member held a Certificate of Clinical Competence from the American Speech and Hearing Association (ASHA). Seven of the therapists indicated additional certifications as elementary teachers and in the speech arts by the Massachusetts Department of Education.

As a part of each therapist's clinical preparation, each therapists was asked to respond to the amount of awareness or exposure to alternative speech and language models. Ten therapists reported they had been made aware of or used the consultation model. Four therapists reported they had been made aware of or used the parent model. Three therapists reported they had been made aware of the home and materials only models. One therapist reported a total immersion

Percentage of Questionnaire Returns

SPEECH AND LANGUAGE THERAPISTS

Round	Distributed	Returned	Percentage
I			
Questionnaire 1 October, 1987	16	12	75%
II			
Questionnaire 2 December, 1987	16	14	88%
III			
Questionnaire 3 February, 1988	16	10	60%
IV			
Questionnaire 4 April, 1988	16	14	88%
V			
Semi-Structured Interviews May to June 1988	--	11	70%

background which required her to live in a residential placement while training. The amount of time given to alternative speech and language models in the therapists' academic and clinical preparations was 10% or less for six therapists; it was only 31-40% for three therapist, and; it was 25-30% for three therapists.

Finally, although gaps in data do exist regarding responses, it appears the respondent's perceptions of the question caused them not to respond. The therapists were asked to respond as best as they understood or remembered their experiences.

Data Analysis By Item. **Likert Item Analysis** chart presents the basic information from round 1 to 4. Consensus was reached on 11 items prior to round 4. This was 40% of Likert items exclusive of any repeated items. Round 2 showed the highest level of items at the 3.0-5.0 level. Decreases in the range and SD were also evidenced in rounds 2 and 3. In particular, there was a decrease of some 25% in the SD in these two rounds. Stablization of repeated items was indicated to be 50% in mean and range. This indicates a singleness of purpose relative to the goals of a speech and language program. In all, 14 items were carried-over into round four.

Round 4 findings using the **Likert Item Analysis** chart reveal that 13 items were at the 3.0-3.9 level. One item was at the 4.0-5.0 level. Six items were at the 2.0-2.9

Likert Item Analysis

		Rnd 1	Rnd 2	Rnd 3	Rnd 4
1.	Total number of all items.	10	15	15	20
2.	Number of non-Likert items.	2	0	0	0
3.	Items at the **0-1.9** level.	0	0	0	0
4.	Items at the **2.0-2.9** level.	3	2	6	6
5.	Items at the **3.0-3.9** level.	1	7	7	13
6.	Items at the **4.0-5.0** level.	4	6	1	1
7.	Repeated items showing an increase/decrease:				
	Mean...		3/1	1/4	11/3
	Range...		2/0	1/4	7/2
	SD...		0/4	2/5	10/3
	Mode...		1/0	1/1	0
8.	Repeated items showing stabilization or no change:				
	Mean...		0	2	0
	Range...		2	2	5
	SD...		0	0	1
	Mode...		2	5	14
9.	Other responses...		1	2	0

level. Eleven of the repeated items showed an increase mean totaling 79%. Increases in the range and SD were noted. Stabilization of repeated items showed a similar 79% increase in the mode. Six items, or 30%, were at the 2.0-2.9 level.

Data Analysis By Objectives. Briefly, the general objectives were: (1) to develop awareness of alternative speech and language models; (2) increase usage of the alternative models, and; (3) develop a consensus regarding direct and indirect service models used by the speech therapists in the public schools. Twelve of the therapists had to met the statistical criteria previously stated. The specific objectives focus in on sub-points of a general objective. The practicum doer had to continually monitor survey results to ascertain if the goals were reached according to the standards established.

The **Questionnaire Items As Related To Objectives** charts indicate the emphasis of each item as to the stated objectives. Seventy percent of all items reached the subtainial attainment level for general objective 1. Item responses for general objective 2, i.e. increasing the use of alternative service models, indicates that 60% of the participants had increased their use of other models. Seventy-eight percent of item responses for general objective 3 indicate consensus regarding indirect service models at the substantial level. Imbrication between

major objectives was 60% for all items in round 4.

Round 4 items relating to the aims of the speech and language program indicate both awareness and consensus. The mean ratings in round 4 for the first three items were 3.0, 3.35 and 2.64 respectively exhibiting stabilization over three rounds of surveying. Areas for further attention include feedback to the classroom teacher of home and materials only activities. Specific items (e.g.s items number 8, 11, 13, 14, 15) reveal low mean scores in the 2.0 range with SD above 1.0. Nevertheless, the therapists generally agree that instructional procedures for most mildly handicapped SI students are substantially the same as for nonhandicapped students. Variability was indicated from round 1 in several categories of the descriptive measures employed.

Semi-structured Interviews. Extra learning outcomes of the process were revealed through the interviews. Participants' comments related to 7 areas: (1) that all staff (including regular and special education personnel) must assist in supporting speech and language development; (2) that most participants reviewed statistical findings before completing each revised survey; (3) that direct and indirect service models must be based on each individual case; (4) that several survey items were long and/or ambiguous; (5) that most staff understood the mean, mode and range but some did not understand the SD; (6) that

Descriptive Measures of Questionnaire 4

DELPHI TECHNIQUE : CENTRAL TENDENCY

Item	Mean	Range	SD	Mode
1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.	3.0	3	1.2	2
2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.	3.35	2	.929	4
3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.	2.64	2	.929	2
4. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?	3.42	3	1.09	4
5. I use a monitoring system on a regular basis for providing meaningful feedback and suggestions to the classroom teacher.	3.85	3	1.12	4
6. I feel a monitoring system provides verifiable and accurate information concerning placement of a child in the least restrictive environment.	4.85	2	.73	
7. I feel that the classroom environment is the appropriate place for speech and language to develop.	3.92	1	.27	4
8. I provide home activities with only written directions (e.g.s. worksheets, home calendars, tip sheets, home packets) for children with speech and language dysfunctions.	2.5	4	1.09	2

9. I seek parent participation as a part of the speech and language program.	3.07	4	1.33	2
10. I provide specific information (i.e. written and oral) concerning the speech and/or language problem to parents.	3.85	3	.864	4
11. I follow-up on home activities with the child in the therapy setting.	3.85	3	1.17	
12. I follow-up on home activities with the parent using direct contacts (e.g.s. telephone calls, notes and letters).	2.85	4	1.29	
13. I provide feedback on home activities to the classroom teacher to reinforce speech and/or language skills consistent with the child's educational plan and the least restrictive prototype.	2.64	4	1.27	2
14. For the child with a quantifiable speech only handicap (or language only handicap) I use indirect therapy.	2.21	4	1.12	2
15. I generate modifications and/or alternatives in the child's educational plan prior to annual review.	2.50	3	1.40	4
16. My participation in these questionnaires has provided me an opportunity to compare direct and indirect service model practices of other school speech therapists.	3.28	3	1.13	4
17. My understanding of the importance of indirect service models as the least restrictive prototype has increased.	3.85	3	1.12	4

18. The feedback from each questionnaire has allowed me to re-examine my evaluation procedures regarding direct and indirect service models as the least restrictive prototype.	3.85	3	.66	4
19. I feel that effective instructional procedures for the nonhandicapped and most mildly handicapped speech (or language) students are substantially the same.	3.35	3	1.08	4
20. I feel I have been able to clarify my role in using indirect service models as the least restrictive prototype.	3.42	2	.756	4

nearly half of the participants indicated surprise at the groups' responses to certain items, and; (7) that most of the participants indicated they had ungone a rethinking regarding direct and indirect service models.

Other individual outcomes were: (1) two staff members said they initiated parent and home models partly due to the issues raised by the questionnaires; (2) several participants said they felt "locked-in" to service delivery models because the administrative requirements of Chapter 766; (3) 25% of the participants said they had attempted to increase their use of the least restrictive service model, and; (4) three participants said that the surveys were a good idea and they missed the questionnaires at the end of the process.

Discussion and Conclusions

The goals of the practicum were met at two levels. Awareness and consensus increased to the seventy percentile level. Use of alternative service models attained the sixty percentile level. The quantitative measure, the Delphi technique, and the qualitative measure, the semi-structured interviews, support the conclusion that all general objectives were met. The interview process affirmed that staff members had specific perceptions of service delivery and had undergone a re-thinking process through the use of the Delphi technique.

The key implication of the findings is that participants responded favorably to assessing processes from within their own department. They shared perceptions and concerns without philosophical debate or long meetings. Participants used their professional judgment and experience. There were no admistrative directives although middle and senior level administrators supported the practicum.

Unanticipated outcomes were minimal. They were procedural in nature. First, questionnaires were late arriving to specific locations because some staff are not permanetly stationed in a specific school. This reduced the turn-around time for some therapists. Second, holiday periods caused some delay in the process. Third, the processing of feedback materials took longer than anticipated. These factors were not detrimental to the project.

Future concerns were expressed in a collective manner. The need to maintain the least restrictive environment should be based on an educational plan that has options. This must include the regular education program, separate and pull-out programs. The responsibility for helping children is a collective responsibility. Professional staff, parents and others must develop a mutual understanding and agreement for successful intervention strategies. There are alternative models of service delivery which need to presented through traditional in-service programs, workshops and innovative action orientated projects.

These are not new ideas. Direct service models are often

evaluated (Gersten, 1985). Indirect service models are not. Children can benefit by proper planning (Kami & DeVries, 1978). The concern of the therapist doing the evaluation requires thoughtful assessment (Carrow, 1972; Schiefelbush, 1986). Context plays an important role for social integration of communicative skills and the least restrictive environment (McLoughlin & Gullo, 1985; McClean & Odom, 1988). The practicum affirms conceptual beliefs and other research findings that there are other avenues available for the delivery of speech and language services.

Dissemination of this practicum will be undertaken through professional publication, presentations at professional conferences and specialized groups including administrators, special subject teachers and therapists. The results and the method used in the practicum offer future audiences an opportunity to expand their scope of service models. The report will be shared with the speech therapists and Assistant Superintendent of Special Services as documentation to the Massachusetts State Department of Special Education of the school department's interest and concern for expanding the use of alternative service models as the least restrictive prototype.

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APPENDIX A

PARTICIPANT CONSENT AND RELEASE FORM

STAFF PROFILE QUESTIONNAIRE

RELEASE AND ACKNOWLEDGEMENT

I acknowledge and affirm voluntary participation in the practicum of Paul Operach described herein. I realize this is not a project of the
Furthermore, I am aware of my right to withdraw from participation at any time.

_____
Name

_____
Date

Practicum Involvement: All participation is voluntary and anonymous. The purpose of this year long project is to explore, develop and increase the use of non-direct service models of speech and language services in a public school setting. Four surveys, using a Delphi technique, and a follow-up interview would be involved. Also, a final report may be submitted for publication and/or ERIC inclusion.

Program Description: This major practicum is a partial requirement for the degree of Doctor of Education (Ed.D.) in Early and Middle Childhood Education at **Nova University**, Cluster XXI, Wilmington, Delaware. The university's main campus is located at 3301 College Avenue, Fort Lauderdale, Florida.

The practicum will be reviewed and verified by a program advisor, a local verifier, and the practicum director. Consultation with Dr. Mills, Director of Nova University's Speech and Language Clinic (ASHA certified) is a prerequisite of this project.

STAFF PROFILE
SPEECH AND LANGUAGE THERAPISTS

This information is necessary inorder to ascertain the backgrounds and experiences of the target group in the Practicum. No names will be used. This is simply data collection.

Directions: Kindly check the best answer as it applies to you. If you have any questions feel free to contact me. Thank you.

1. Sex: Male_____ Female_____

2. Age: 20-25____ 26-30____ 31-35____ 36-40____ 40+____

3. Years of Teaching Experience (Classroom):
   None_____
   1-3_____
   4-9_____
   10-15_____
   15-20_____

4. Years as a Specialist in public schools (Speech Therapist):
   None_____
   1-3_____
   4-9_____
   10-15_____
   15+_____

5. Years as a Specialist (Speech Therapist) in clinical or private practice.
   None_____
   1-3_____
   4-9_____
   10-15_____
   15+_____

6. Education:
   Bachelor Level_____
   Bachelor Plus 15 Hours_____
   Masters Level_____
   Masters Plus 15 Hours_____
   Certificate of Advance Studies/Doctorate_____

7. Undergraduate Major:
   Arts_____
   Sciences (including Speech Sciences) _____
   Education (Elememtary) _____

Education (Secondary) _____
Other _____

8. Undergraduate Minor:
Arts _____
Sciences (including Speech Sciences) _____
Education (Elementary) _____
Education (Secondary) _____
Other _____

9. Graduate Major (If Applicable):
Arts _____
Sciences (including Speech Sciences) _____
Elementary Education _____
Secondary Education _____
Other _____

10. Degree Granting Institution:
Undergraduate Public Institution_____
Undergraduate Private Institution _____
Graduate Public Institution_____
Graduate Private Institution _____
Other (Please Explain)_____

11. Practice Teaching (Classroom):
None_____
0-8 Weeks_____
9-16 Weeks_____
17-40 Weeks_____
Other_____

12. Clinical Practice (Non-Classroom):
None_____
0-25 Clock Hours_____
26-50 Clock Hours _____
51-100 Clock Hours_____
Over 100 Clock Hours _____

13. Certification and/or Registration:
Speech and Hearing Handicap (DOE Area 57)_____
Massachusetts Licensure: Speech Pathologist_____
ASHA Certification: Speech & Language_____
Teaching Certification: Classroom_____
Other (Please State)_____

14. Primary Population You Presently Service (by Prototype):
502.1_____
502.2_____
502.3_____
502.4_____
Other Prototype (Please State)_____

15. In preparation for Certification or Licensure as a Speech Therapist/Pathologist, I was made aware of alternative

Speech and Language Models:

Consultation Model_____
Parent Model_____
Home Model_____
Materials Only Model_____
Other (Please State)_____

16. The amount of time given to each model/models:

None_____
0-10%_____
11-25%_____
26-30%_____
31-40%_____
Other (Please State)_____

APPENDIX B

QUESTIONNAIRES

October 16, 1987

Dear Therapist:

Enclosed is a questionnaire regarding the services which you provide. Could you kindly complete this questionnaire to the best of your ability. Results of this first survey will be made available to you just prior to the second round of surveying. Thank you.

Yours truly,

Paul Operach

SPEECH AND LANGUAGE QUESTIONNAIRE
October, 1987

Directions: Kindly answer the following items as they apply to you. In most cases circle the answer. Thank you.

---

1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.

5	4	3	[2]	1
strongly agree	agree	undecided	disagree	strongly disagree

2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.

5	4	3	2	[1]
strongly agree	agree	undecided	disagree	strongly disagree

3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.

5	[4]	[3]	[2]	[1]
strongly agree	agree	undecided	disagree	strongly disagree

4. The purpose of this item is to determine the importance of the following factors in your assessment of speech and language dysfunctions regarding direct services. Please rank order the following factors from one to twelve. Place a "1" in front of your first choice, "2" in front of your second choice up to the number 12. Please rank all factors using each choice **only once.**

2	specialized tests
1	developmental/cognitive abilities of the child
3	social/affective abilities of the child
9	socioeconomic factors
3	motivation of the child
5	motivation of the family
7	parent's comments
7	teacher's comments
10	principal's comments
11	therapist's caseload
11	therapist's schedule
6	bilingual background

5. In a team meeting I encourage the use of alternative speech and language service models.

___5___	[4]	3	2	1___
strongly encourage	encourage	no opinion	discourage	strongly discourage

6. Prior to speech therapy service, I encourage classroom modifications regarding speech and language activities and skills.

___5___	[4]	3	2	1___
strongly encourage	encourage	no opinion	discourage	strongly discourage

7. Prior to direct service placement, I encourage home activities and skills with the parent.

___5___	[4]	3	2	1___
strongly encourage	encourage	no opinion	discourage	strongly discourage

8. Would you favor alternative speech and language models as a way of reducing caseloads?

__[5]__	4	3	2	1___
strongly favor	tend to favor	no opinion	tend to favor	strongly disfavor

9. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?

__[5]__	4	[3]	2	1___
definitely yes	probably yes	uncertain	probably NO	definitely NO

10. The purpose of this item is to determine which environment you feel is most appropriate for speech and language development and support. Please rank order the following settings from one to six (if applicable). Place a "1" in front of the most appropriate, "2" in front of the next less appropriate up to the number six (if applicable).

__1_ the home environment
__2_ the classroom setting
__5_ the school environment
__3_ the therapy setting
__4_ peer interactions in all settings
____ other_____

Note: A bracket indicates the most frequent response. There are some ties. Also, the rank ordering has some ties which explains repeated numbers.

SPEECH AND LANGUAGE QUESTIONNAIRE
December, 1987

Directions: Kindly answer **all** the following items. The first four items are carried-over from the October questionnaire. The most frequent response **(called the mode)** of the group is given in brackets. Please re-evaluate these items. All other items are new. **Return this questionnaire to me at Pupil Personnel Services by** DECEMBER 15, 1987. **Thank you.**

---

1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.

5	4	3	[2]	1
strongly agree	agree	undecided	disagree	strongly disagree

2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.

5	4	3	2	[1]
strongly agree	agree	undecided	disagree	strongly disagree

3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.

5	[4]	[3]	[2]	[1]

4. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?

[5]	4	[3]	2	1

5. I feel a monitoring system (i.e. written logs, diaries, planbook notes and checklists) is an extension of each student's educational plan.

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

6. I use a monitoring system on a regular basis for providing meaningful feedback and suggestions to the classroom teacher.

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

7. I feel a monitoring system provides verifiable and accurate information concerning placement of a child in the least restrictive prototype.

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

8. I feel the home environment is the appropriate place for speech and language to develop.

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

9. I feel that the classroom environment is the appropriate place for speech and language to develop.

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

10. In assessing a child for direct or indirect speech or language services, specialized tests are:

5	4	3	2	1
very important	important	undecided	unimportant	very unimportant

11. In assessing a child for direct or indirect speech or language services, developmental and cognitive abilities are:

5	4	3	2	1
very important	important	undecided	unimportant	very unimportant

12. In assessing a child for direct or indirect speech or language services, social and affective abilities are:

5	4	3	2	1
very important	important	undecided	unimportant	very unimportant

13. In assessing a child for direct or indirect speech or language services, motivation of the child is:

5	4	3	2	1
very important	important	undecided	unimportant	very unimportant

14. Rate yourself as to the use of direct therapy as the least restrictive prototype.

5	4	3	2	1
excellent	good	Undecided	poor	unsatisfactory

15. Rate yourself as to the use of indirect service models (i.e. consultation, home, parent and materials only models) as the least restrictive prototype.

5	4	3	2	1
excellent	good	Undecided	poor	unsatisfactory

SPEECH AND LANGUAGE QUESTIONNAIRE
February, 1988

Directions: Kindly answer **all** the following items. The first seven items are carried-over from the December questionnaire. The most frequent response **(called the mode)** of the group is given in brackets. Please re-evaluate these items. All other items are new. **Return this questionnaire to me at Pupil Personnel Services by** FEBRUARY 25, 1988. **Thank you.**

---

1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.

5	4	3	[2]	1
strongly agree	agree	undecided	disagree	strongly disagree

2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.

5	4	[3]	2	1
strongly agree	agree	undecided	disagree	strongly disagree

3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.

5	4	[3]	2	1
strongly agree	agree	undecided	disagree	strongly disagree

4. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?

5	[4]	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

5. I use a monitoring system on a regular basis for providing meaningful feedback and suggestions to the classroom teacher.

[5]	4	[3]	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

6. I feel a monitoring system provides verifiable and accurate information concerning placement of a child in the least restrictive prototype.

5	[4]	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

7. I feel that the classroom environment is the appropriate place for speech and language to develop.

5	[4]	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

8. I provide home activities with only written directions (e.g.s. worksheets, home calendars, tip sheets, home packets) for children with speech and language dysfunctions.

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

9. I seek parent participation as a part of the speech and language program.

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

10. I provide specific information (i.e. written and oral) concerning the speech and/or language problem to parents.

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

11. I follow-up on home activities with the child in a in the therapy setting.

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

12. I follow-up on home activities with the parent using direct contacts (e.g.s telephone calls, notes and letters).

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

13. I provide feedback on home activities to the classroom teacher to reinforce speech and/or language skills consistent with the child's educational plan and the least restrictive prototype.

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

14. For the child with a quantifiable speech only handicap (or language only handicap) I use **direct** therapy:

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

15. For the child with a quantifiable speech only handicap (or language only handicap) I use **indirect** therapy:

5	4	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

SPEECH AND LANGUAGE QUESTIONNAIRE
April, 1988

Directions: Kindly answer **all** the following items. The first fourteen are carried-over from the February questionnaire. The most frequent response **(called the mode)** of the group is given in brackets. Please re-evaluate these items. All other items are new. **Return this questionnaire to me at Pupil Personnel Services by April 22, 1988. Thank you.**

---

1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.

5	4	3	[2]	1
strongly agree	agree	undecided	disagree	strongly disagree

2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.

5	[4]	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.

5	4	3	[2]	1
strongly agree	agree	undecided	disagree	strongly disagree

4. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?

5	[4]	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

5. I use a monitoring system on a regular basis for providing meaningful feedback and suggestions to the classroom teacher.

5	[4]	3	2	1
almost always	frequently	Approximately equal in occurrence and nonoccurrence	infrequently	almost never

6. I feel a monitoring system provides verifiable and accurate information concerning placement of a child in the least restrictive prototype.

___5_____[4]_____3_____2_____1___
strongly agree / agree / undecided / disagree / strongly disagree

7. I feel that the classroom environment is the appropriate place for speech and language to develop.

___5_____[4]_____3_____2_____1___
strongly agree / agree / undecided / disagree / strongly disagree

8. I provide home activities with only written directions (e.g.s. worksheets, home calendars, tip sheets, home packets) for children with speech and language dysfunctions.

___5_____4_____3_____[2]_____1___
almost always / frequently / Approximately equal in occurrence and nonoccurrence / infrequently / almost never

9. I seek parent participation as a part of the speech and language program.

___5_____4_____3_____[2]_____1___
almost always / frequently / Approximately equal in occurrence and nonoccurrence / infrequently / almost never

10. I provide specific information (i.e. written and oral) concerning the speech and/or language problem to parents.

___5_____[4]_____3_____2_____1___
almost always / frequently / Approximately equal in occurrence and nonoccurrence / infrequently / almost never

11. I follow-up on home activities with the child in a in the therapy setting.

___5_____[4]_____3_____2_____1___
almost always — frequently — Approximately equal in occurrence and nonoccurrence — infrequently — almost never

12. I follow-up on home activities with the parent using direct contacts (e.g.s telephone calls, notes and letters).

___5_____4_____3_____[2]_____1___
almost always — frequently — Approximately equal in occurrence and nonoccurrence — infrequently — almost never

13. I provide feedback on home activities to the classroom teacher to reinforce speech and/or language skills consistent with the child's educational plan and the least restrictive prototype.

___5_____4_____3_____[2]_____1___
almost always — frequently — Approximately equal in occurrence and nonoccurrence — infrequently — almost never

14. For the child with a quantifiable speech only handicap (or language only handicap) I use **indirect** therapy:

___5_____4_____3_____[2]_____1___
almost always — frequently — Approximately equal in occurrence and nonoccurrence — infrequently — almost never

15. I generate modifications and/or alternatives in the child's educational plan prior to annual review.

___5_____4_____3_____[2]_____1___
almost always — frequently — Approximately equal in occurrence and nonoccurrence — infrequently — almost never

16. My participation in these questionnaires has provided me an opportunity to compare direct and indirect service model practices of other school speech therapists.

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

17. My understanding of the importance of indirect service models as the least restrictive prototype has increased.

5	4	3	2	1
definitely yes	probably yes	uncertain	probably no	definitely no

18. The feedback from each questionnaire has allowed me to re-examine my evaluation procedures regarding direct and indirect service models as the least restrictive prototype.

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

19. I feel that effective instructional procedures for the nonhandicapped and most mildly handicapped speech (or language) students are substantially the same.

5	4	3	2	1
strongly agree	agree	undecided	disagree	strongly disagree

20. I feel I have been able to clarify my role in using indirect service models as the least restrictive prototype.

5	4	3	2	1
definitely yes	probably yes	uncertain	probably no	definitely no

APPENDIX C

DESCRIPTIVE MEASURES

Descriptive Measures of Questionnaire 1

DELPHI TECHNIQUE : CENTRAL TENDENCY

Item	Mean	Range	SD	Mode
1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.	2.5	4	1.57	2
2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.	2.0	3	1.28	1
3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.	2.5	2	1.17	
5. In a team meeting I encourage the use of alternative speech and language service models.	3.25	1	.45	4
6. Prior to speech therapy service, I encourage classroom modifications regarding speech and language activities and skills.	4.25	1	.45	4
7. Prior to direct service placement, I encourage home activities and skills with the parent.	4.0	0	0	4
8. Would you favor alternative speech and language models as a way of reducing caseloads?	4.25	1	.45	4
9. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?	4.0	2	1.04	

Descriptive Measures of Questionnaire 2

DELPHI TECHNIQUE : CENTRAL TENDENCY

Item	Mean	Range	SD	Mode
1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.	2.93	4	1.21	2
2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.	2.93	3	1.14	3
3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.	3.07	4	1.07	3
4. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?	3.86	3	.86	4
5. I feel a monitoring system (i.e. written logs, diaries, planbook notes and checklists) is an extension of each student's educational plan.	4.07	3	.83	4
6. I use a monitoring system on a regular basis for providing meaningful feedback and suggestions to the classroom teacher.	3.57	3	1.16	
7. I feel a monitoring system provides verifiable and accurate information concerning placement of a child in the least restrictive environment.	3.78	3	.80	4
8. I feel the home environment is the appropriate place for speech and language to develop.	4.14	3	1.03	
9. I feel that the classroom environment is the appropriate place for speech and language to develop.	3.93	3	.62	4

10. In assessing a child for direct or indirect speech or language services, specialized tests are:	4.36	1	.50	4
11. In assessing a child for direct or indirect speech or language services, developmental and cognitive abilities are:	4.5	1	.52	
12. In assessing a child for direct or indirect speech or language services, social and affective abilities are:	4.0	3	.88	4
13. In assessing a child for direct or indirect speech or language services, motivation of the child is:	4.14	3	.86	4
14. Rate yourself as to the use of direct therapy as the least restrictive prototype.	3.93	3	.82	4
15. Rate yourself as to the use of indirect service models (i.e. consultation, home, parent and materials only models) as the least restrictive prototype.	3.14	3	1.17	2

Descriptive Measures of Questionnaire 3

DELPHI TECHNIQUE : CENTRAL TENDENCY

Item	Mean	Range	SD	Mode
1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.	2.9	3	1.20	2
2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.	3.1	2	.88	4
3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.	2.3	3	.82	2
4. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?	3.4	2	.84	4
5. I use a monitoring system on a regular basis for providing meaningful feedback and suggestions to the classroom teacher.	3.2	4	1.398	
6. I feel a monitoring system provides verifiable and accurate information concerning placement of a child in the least restrictive prototype.	3.6	2	.70	4
7. I feel that the classroom environment is the appropriate place for speech and language to develop.	3.5	2	.72	4

8.	I provide home activities with only written directions (e.g.s. worksheets, home activities, tip sheets, home packets) for children with speech and language dysfunctions.	2.6	3	.97	2
9.	I seek parent participation as a part of the speech and language program.	2.2	3	1.32	2
10.	I provide specific information (i.e. written and oral) concerning the speech and/or language problem to parents.	3.5	3	.97	4
11.	I follow-up on home activities with the child in a therapy setting.	3.1	2	.73	4
12.	I follow-up on home activities with the parent using direct contacts (e.g.s. telephone calls, notes and letters).	2.0	2	.78	2
13.	I provide feedback on home activities to the classroom teacher to reinforce speech and/or language skills consistent with the child's educational plan and the least restrictive prototype.	2.11	2	.82	2
14.	For the child with a quantifiable speech only handicap (or language only handicap) I use direct therapy:	4.4	1	.52	4
15.	For the child with a quantifiable speech only handicap (or language only handicap) I use indirect therapy:	1.7	2	.67	2

Descriptive Measures of Questionnaire 4

DELPHI TECHNIQUE : CENTRAL TENDENCY

Item	Mean	Range	SD	Mode
1. I feel an aim of a speech and language program is to provide direct services to all children with speech and language dysfunctions.	3.0	3	1.2	2
2. I feel an aim of a speech and language program is to provide direct services to only children with quantifiable dysfunctions.	3.35	2	.929	4
3. I feel an aim of a speech and language program is to provide indirect services (502.1) to all children.	2.64	2	.929	2
4. Do you feel the regular classroom teacher can work effectively with the speech and language impaired child?	3.42	3	1.09	4
5. I use a monitoring system on a regular basis for providing meaningful feedback and suggestions to the classroom teacher.	3.85	3	1.12	4
6. I feel a monitoring system provides verifiable and accurate information concerning placement of a child in the least restrictive environment.	4.85	2	.73	
7. I feel that the classroom environment is the appropriate place for speech and language to develop.	3.92	1	.27	4
8. I provide home activities with only written directions (e.g.s. worksheets, home calendars, tip sheets, home packets) for children with speech and language dysfunctions.	2.5	4	1.09	2

9. I seek parent participation as a part of the speech and language program.	3.07	4	1.33	2
10. I provide specific information (i.e. written and oral) concerning the speech and/or language problem to parents.	3.85	3	.864	4
11. I follow-up on home activities with the child in the therapy setting.	3.85	3	1.17	
12. I follow-up on home activities with the parent using direct contacts (e.g.s. telephone calls, notes and letters).	2.85	4	1.29	
13. I provide feedback on home activities to the classroom teacher to reinforce speech and/or language skills consistent with the child's educational plan and the least restrictive prototype.	2.64	4	1.27	2
14. For the child with a quantifiable speech only handicap (or language only handicap) I use indirect therapy.	2.21	4	1.12	2
15. I generate modifications and/or alternatives in the child's educational plan prior to annual review.	2.50	3	1.40	4
16. My participation in these questionnaires has provided me an opportunity to compare direct and indirect service model practices of other school speech therapists.	3.28	3	1.13	4
17. My understanding of the importance of indirect service models as the least restrictive prototype has increased.	3.85	3	1.12	4

18. The feedback from each questionnaire has allowed me to re-examine my evaluation procedures regarding direct and indirect service models as the least restrictive prototype.	3.85	3	.66	4
19. I feel that effective instructional procedures for the nonhandicapped and most mildly handicapped speech (or language) students are substantially the same.	3.35	3	1.08	4
20. I feel I have been able to clarify my role in using indirect service models as the least restrictive prototype.	3.42	2	.756	4

APPENDIX D

OBJECTIVES AS RELATED TO LIKERT ITEMS

QUESTIONNAIRE ITEMS AS RELATED TO OBJECTIVES

	Round 1 Question							
	1	2	3	5	6	7	8	9
MAJOR OBJECTIVES:								
1. Developing awareness of alternative speech and language models.				X	X		X	X
2. Increasing useage of alternative models.				X		X	X	
3. Developing consensus regarding direct and indirect service models.	X	X	X					X

QUESTIONNAIRE ITEMS AS RELATED TO OBJECTIVES --- Round 2

	Question														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAJOR OBJECTIVES:															
1. Developing awareness of alternative speech and language models.				X				X	X						
2. Increasing useage of alternative models.					X		X								
3. Developing consensus regarding direct and indirect service models.	X	X	X	X	X	X				X	X	X	X	X	X
SPECIFIC OBJECTIVES:															
1. Clarifying least restrictive prototype.						X								X	X
2. Evaluating more frequently student goals.					X		X								
3. Acquiring knowledge of regular education.				X			X		X	X					
4. Increasing clarification of role.	X	X	X											X	
5. Increase use of parent model.															
6. Increase use of home model.								X							
7. Increase use of consultation model.						X									
8. Increase use of materials only model.															
9. Establishing priorities of learning environment.					X										
					X						X	X	X		
10. Developing agreement regarding speech only handicap.															

QUESTIONNAIRE ITEMS AS RELATED TO OBJECTIVES --- Round 3

	Question														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAJOR OBJECTIVES:															
1. Developing awareness of alternative speech and language models.				X		X	X	X	X	X	X	X		X	
2. Increasing useage of alternative models.					X		X	X	X	X	X	X		X	
3. Developing consensus regarding direct and indirect service models.	X	X	X	X	X		X	X	X					X	
SPECIFIC OBJECTIVES:															
1. Clarifying least restrictive prototype.					X									X	
2. Evaluating more frequently student goals.						X									
3. Acquiring knowledge of regular education.				X		X	X								
4. Increasing clarification of role.	X	X	X												
5. Increase use of parent model.									X	X					
6. Increase use of home model.								X			X	X	X		
7. Increase use of consultation model.					X										
8. Increase use of materials only model.															
9. Establishing priorities of learning environment.															
10. Developing agreement regarding speech only handicap.														X	X
														X	X

QUESTIONNAIRE ITEMS AS RELATED TO OBJECTIVES

Round 4

	Question 1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20
MAJOR OBJECTIVES:																			
1. Developing awareness of alternative speech and language models.				X			X	X	X	X	X								
2. Increasing usage of alternative models.						X		X	X	X	X	X		X	X	X	X		X
3. Developing consensus regarding direct and indirect service models.	X	X	X	X	X			X	X	X		X		X			X		X
													X		X	X	X	X	X
SPECIFIC OBJECTIVES:																			
1. Clarifying least restrictive prototype.					X														
2. Evaluating more frequently student goals.						X							X		X	X	X	X	X
3. Acquiring knowledge of regular education.				X		X											X		
4. Increasing clarification of role.	X	X	X				X											X	
5. Increase use of parent model.									X	X								X	X
6. Increase use of home model.								X			X								
7. Increase use of consultation model.					X							X							
8. Increase use of materials only model.																			
9. Establishing priorities of learning environment.																			
10. Developing agreement regarding speech only handicap.													X					X	
													X						X

APPENDIX E

SEMI-STRUCTURED INTERVIEW DATA

SEMI-STRUCTURED INTERVIEW FORMAT

Semi-structure interviews permitted the author to probe as to the concerns of the participants. It was intended to verify the objective findings of the surveys and to provide an avenue for individual concerns relative to the service delivery. The questions addressed:

1. the objectives of the speech and language program in the school department;
2. monitoring and recording methodology regarding the least restrictive environment;
3. quantifiable versus qualitative assessments in developing protocols for educational plans;
4. changes or adjustments in service delivery;
5. the questionnaire technique and understanding the statitical data;
6. participant's role in the Delphi process;
7. concerns regarding service delivery.